

## **Progress toward enabling the optimal experiment**

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Program BEST for optimal planning of X-ray diffraction measurements from MX is based on modelling the statistical results of data collection taking radiation damage effects into account. Furthermore, tools are provided for automatically characterization of the radiation sensitivity of macromolecular crystals as well as characterization of crystal diffraction quality for the advanced sample evaluation. We will present a review on BEST strategy implementations and current automation and high throughput applications. The design of optimal strategy for collecting a data set using small beams and multiple crystals, for experiments utilizing ultrafast area detectors and planning of data collection at room temperature will be discussed.